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What is claimed is:

1. A method for strengthening a vessel wall of a subject comprising:
identifying a region of weakness in a vessel wall, the region of weakness
comprising at least one target layer; and
applying energy to the region of weakness in an amount effective to induce
fibrosis in a target layer, to thereby strengthen the vessel wall.
2. The method of claim 1, wherein the step of identifying the region of weakness
comprises using ultrasound analysis.
3. The method of claim 1, wherein the step of identifying the region of weakness
comprises using X-ray analysis.
4. The method of claim 1, wherein the step of applying energy to the region of
weakness comprises irradiating the region of weakness with X-ray irradiation in
an amount effective to induce fibrosis in a target layer.
5. The method of claim 1, wherein the step of applying energy to the region of
weakness comprises irradiating the region of weakness with UV irradiation in an
amount effective to induce fibrosis in a target layer.
6. The method of claim 1, wherein the step of applying energy to the region of
weakness comprises irradiating the region of weakness with IR irradiation in an
amount effective to induce fibrosis in a target layer.
7. The method of claim 1, wherein the step of applying energy to the region of
weakness comprises irradiating the region of weakness with microwave
irradiation in an amount effective to induce fibrosis in a target layer.

8. The method of claim 1, wherein the step of applying energy to the region of weakness comprises irradiating the region of weakness with heat irradiation in an amount effective to induce fibrosis in a target layer.

5 9. The method of claim 1, wherein the step of applying energy to the region of weakness comprises irradiating the region of weakness with RF irradiation in an amount effective to induce fibrosis in a target layer.

10 10. The method of claim 1, wherein the method further comprises,
administering a therapeutically effective amount of an agent to a subject, such that the agent is taken up by at least one target layer of the vessel wall.

15 11. The method of claim 10, wherein the method further comprises,
administering a therapeutically effective amount of photoactivatable agent, such that the photoactivatable agent is activated upon irradiation to induce fibrosis in a target layer.

20 12. A method for strengthening a vessel wall of a subject comprising:
administering a therapeutically effective amount of a photoactivatable agent to a subject, such that the agent is taken up by at least one layer of the vessel wall; and
applying energy to a target region of the vessel wall, such that the photoactivatable agent is activated to strengthen the vessel wall.

25 13. The method of claim 12, wherein the step of administering a therapeutically effective amount of a photoactivatable agent further comprises systemically administering the photoactivatable agent.

14. The method of claim 12, wherein the step of administering a therapeutically effective amount of a photoactivatable agent further comprises locally administering the photoactivatable agent.

5 15. The method of claim 12, wherein the step of administering a therapeutically effective amount of a photoactivatable agent further comprises administering a psoralen agent or derivatives thereof.

10 16. The method of claim 12, wherein the step of applying energy to a target region further comprises irradiating the target region internally using a light delivery catheter.

15 17. The method of claim 16, wherein the step of applying energy to a target region further comprises irradiating the target region using a light delivery catheter without occluding fluid flow.

20 18. The method of claim 12, wherein the step of applying energy to a target region further comprises irradiating the target region externally using an external light delivery source.

19. The method of claim 12, wherein the step of applying energy to a target region further comprises irradiating the target region with UV irradiation.

25 20. A method for increasing the adventitial area of a blood vessel wall comprising:
administering a therapeutically effective amount of a photoactivatable agent to a subject, such that the agent is taken up by the adventitial area; and
applying energy to a target region of the blood vessel wall so that the photoactivatable agent is activated to increase the adventitial area.

21. The method of claim 20, wherein the step of administering a therapeutically effective amount of a photoactivatable agent further comprises systemically administering the photoactivatable agent.
- 5 22. The method of claim 21, wherein the step of administering a therapeutically effective amount of a photoactivatable agent further comprises locally administering the photoactivatable agent.
- 10 23. The method of claim 21, wherein the step of administering a therapeutically effective amount of a photoactivatable agent further comprises administering a psoralen agent or derivatives thereof.
- 15 24. The method of claim 21, wherein the step of applying energy to a target region further comprises irradiating the target region internally using a light delivery catheter.
- 20 25. The method of claim 24, wherein the step of applying energy to a target region further comprises irradiating the target region using a light delivery catheter without occluding fluid flow.
26. The method of claim 21, wherein the step of applying energy to a target region further comprises irradiating the target region externally using an external light delivery source.
- 25 27. The method of claim 21, wherein the step of applying energy to a target region further comprises irradiating the target region with UV irradiation.

28. A method for treating an aneurysm by increasing the adventitial area of a blood vessel comprising:

administering a therapeutically effective amount of a photoactivatable agent to a subject, such that the agent is taken up by the adventitial area of the blood vessel; and

applying energy to the site of the aneurysm so that the photoactivatable agent increases the adventitial area.

29. The method of claim 30, wherein the step of administering a therapeutically effective amount of photoactivatable agent further comprises systemically administering the photoactivatable agent.

30. The method of claim 30, wherein the step of administering a therapeutically effective amount of photoactivatable agent further comprises locally administering the photoactivatable agent.

31. The method of claim 30, wherein the step of administering a therapeutically effective amount of photoactivatable agent further comprises administering a psoralen agent or derivatives thereof.

32. The method of claim 30, wherein the step of applying energy to the site of the aneurysm further comprises irradiating the site of the aneurysm internally using a light delivery catheter.

33. The method of claim 32, wherein the step of applying energy to the site of the aneurysm further comprises irradiating the site of the aneurysm internally using a light delivery catheter without occluding fluid flow.

34. The method of claim 30, wherein the step of applying energy to the site of the aneurysm further comprises irradiating the site of the aneurysm externally using an external light delivery source.

5 35. The method of claim 30, wherein the step of applying energy to the site of the aneurysm further comprises irradiating the site of the aneurysm with UV irradiation.

10 36. A method for strengthening a vessel wall of a subject comprising, irradiating a target region with UVC irradiation, so that the UVC irradiation induces a fibrosis in at least one layer of the vessel wall.

15 37. The method of claim 36, wherein the step of irradiating the target region further comprises irradiating the target region internally using a light delivery catheter.

38. The method of claim 37, wherein the step of irradiating the target region further comprises irradiating the target region internally using a light delivery catheter without occluding fluid flow.

20 39. The method of claim 36, wherein the step of irradiating the target region further comprises irradiating the target region externally using an external light delivery source.

25 40. The method of claim 36, wherein the step of irradiating the target region further comprises irradiating the target region with UVC irradiation having a wavelength of about 240 to 370 nanometers.

41. A method for increasing the adventitial area of a blood vessel wall comprising, irradiating the target region with UVC irradiation, so that the UVC irradiation increases the adventitial area of the blood vessel wall.

5 42. The method of claim 41, wherein the step of irradiating the target region further comprises irradiating the target region internally using a light delivery catheter.

43. The method of claim 42, wherein the step of irradiating the target region further comprises irradiating the target region internally using a light delivery catheter
10 without occluding fluid flow.

44. The method of claim 41, wherein the step of irradiating the target region further comprises irradiating the target region externally using an external light delivery source.

15 45. The method of claim 41, wherein the step of irradiating the target region further comprises irradiating the target region with UVC irradiation having a wavelength of about 240 to 370 nanometers.

20 46. A method for treating an aneurysm by increasing the adventitial area of a blood vessel comprising, irradiating the site of the aneurysm with UVC irradiation, so that the UVC irradiation increases the adventitial area.

25 47. The method of claim 46, wherein the step of irradiating the site of the aneurysm further comprises irradiating the site of the aneurysm internally using a light delivery catheter.

48. The method of claim 47, wherein the step of irradiating the site of the aneurysm further comprises irradiating the site of the aneurysm internally using a light delivery catheter without occluding the fluid flow.

5 49. The method of claim 46, wherein the step of irradiating the site of the aneurysm further comprises irradiating the site of the aneurysm externally using an external light delivery source.

10 50. The method of claim 46, wherein the step of irradiating the site of the aneurysm further comprises irradiating the site of the aneurysm with UVC irradiation having a wavelength of about 240 to 370 nanometers.